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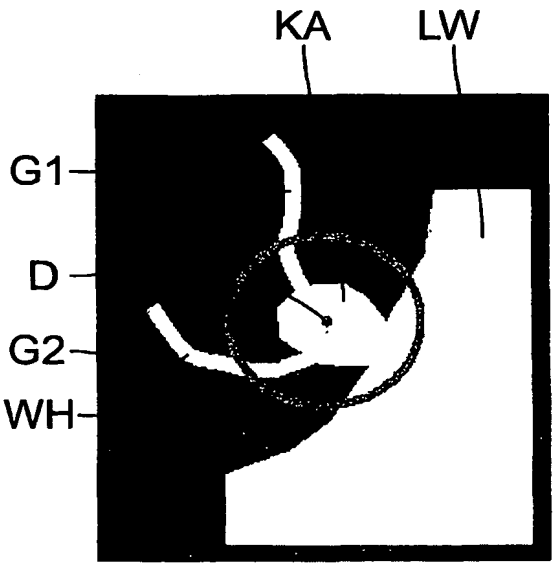
(54) Title: COMPUTER-AIDED DETECTION OF LUNG NODULES



to form an image in which the selected pixels are highlighted.

(57) Abstract: The invention relates to a method and a device for forming an image of body structures from an image data set, notably for highlighting potential nodular structures (KI; KA) in a lung. The problem to be solved by the invention is to achieve automatic highlighting of potential nodular structures in methods of this kind. This is realized in that in a plurality of steps a binary data set is formed in which all pixels present in the image data set are subdivided into pixels to be marked and those not to be marked, a first filtering operation being performed in which for each pixel (D) there is determined a distance value which corresponds to the shortest distance between the pixel and the edge (KAG) of the image structure (KA) in which the pixel is situated, those pixels being selected from the binary data set whose distance value is below a predetermined distance limit value, there being performed a second filtering operation in which those previously selected pixels remain selected which are directly neighbored by two pixels having a smaller distance value in both directions of at least one straight line which extends through the pixel, there being performed a third filtering operation in which those previously selected pixels remain selected for which the surrounding pixels, being situated at a distance corresponding to the distance value of the pixel, have a distance value which is a predetermined distance difference value smaller than the distance value of the pixel to be tested itself, the pixels thus selected being used

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